



A - -

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: 1340-1-034N(SJ-0029)
Inventors: Schuetz et al.
Serial No.: 09/974,619
Filing Date: October 10, 2001
Examiner: Johannsen, Diana B.
Group Art Unit: 1634
Title: Genotyping Assay to Predict CYP3A5 Phenotype

"Express Mail" Label No. EV331020856US
Date of Deposit - October 7, 2003

I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the U.S. Patent and Mail Stop, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

By Kathleen A. Tyrrell
Typed Name: Kathleen A. Tyrrell

Mail Stop Sequence
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Amendment in Response to Notice to Comply

Please enter the following amendments and remarks into the record.

Amendments to the Specification begin at page 2.

Remarks begin at page 5.

Attorney Docket No.: 1340-1-034N(SJ-0029)
 Inventors: Schuetz et al.
 Serial No.: 09/974,619
 Filing Date: October 10, 2001
 Page 3

*Table 4 * CYP3A5 alleles*

CYP3A5	exon	starts in AC005020*	ends in AC005020	5' splice site	3' splice site	functional consequence
	1	15826	15983		ctatctgtgagtaa (SEQ ID NO:41)	
	2	19601	19694	ctttgtagatagg (SEQ ID NO:42)	cgctcaagggtgagta (SEQ ID NO:43)	
	3	21224	21276	ttctccagggtctc (SEQ ID NO:44)	gtgggggtgagtat (SEQ ID NO:45)	
3B, insertion from intron 3		22894	23025	tccttca[A/G]tatctc (SEQ ID NO:46)	ctagggtatggat (SEQ ID NO:47)	CYP3A5*3-22893G; insertion of exon 3B into SV1, SV2, SV3; premature stop after aminoacid 102
	4	23130	23229	ccacacagaacgta (SEQ ID NO:48)	cgaagggttaagcat (SEQ ID NO:49)	
4B, insertion from intron 4		23931	24036	attcgtagatttgt (SEQ ID NO:50)	g[A/G]caggctct (SEQ ID NO:51)	CYP3A5*3-insertions of exon 4B into SV2 and SV3
	5	28744	28857	aactctagtcttt (SEQ ID NO:52)	aaggaggtatgaaa (SEQ ID NO:53)	
5B, insertion from intron 5		28999	29096	algtacagaaaga (SEQ ID NO:54)	ctacaggtactgat (SEQ ID NO:55)	CYP3A5 *3-insertion of exon 5B into SV3
	6	29120	29208	gtgcttagatgttc (SEQ ID NO:56)	gaaagagaagtag (SEQ ID NO:57)	CYP3A5*3-deletion of exon 6 from SV3
	7	30495	30643	ccactcagcatctt (SEQ ID NO:58)	caataagtagtgg (SEQ ID NO:59)	CYP3A5*6-30597G>A; deletion of exon 7 from splice variant; frame shift and premature stop at 184 aa
	8	31714	31841	tcccacagtactct (SEQ ID NO:60)	caaaaggtaaatc (SEQ ID NO:61)	

Attorney Docket No.: 1340-1-034N(SJ-0029)
 Inventors: Schuetz et al.
 Serial No.: 09/974,619
 Filing Date: October 10, 2001
 Page 4

CYP3A5	exon	starts in AC005020*	ends in AC005020	5' splice site	3' splice site	functional consequence
	9	32927	32993	gcttctagcaccga (SEQ ID NO:62)	acaaaggtaaccaa (SEQ ID NO:63)	
	10	35150	35310	ccttcagctctgt (SEQ ID NO:64)	aataagggtgagg (SEQ ID NO:65)	
	11	43030	43256	cttcaggcacca (SEQ ID NO:66)	tgaaaggtaacaagt (SEQ ID NO:67)	
	12	45577	45736	ggaactaggttcag (SEQ ID NO:68)	acacaggtcagtac (SEQ ID NO:69)	
	13	47409	47615	tattgtagatccc (SEQ ID NO:70)		

*The accession numbers for the reference CYP3A5*1cDNA and CYP3A5*3 are J04813 and AC005020, respectively. SV1, splice variant-1; SV2, splice variant-2; SV3, splice variant -3. CYP3A5*3 has a G at nt 22,893 and a consensus splice of [tttcAGtacc] and aberrant splicing of CYP3A5 mRNA. CYP3A5*1 contains an A at nt 22,893 generating a sequence of [tttcAAtacc] and no aberrant splicing of CYP3A5 mRNA. To renumber the mutation sites according to the translation start site (nt 15913 is A in ATG initiation codon) subtract 15912 bases from the SNP location (e.g.; the location of CYP3A5*6 is 14685G>A).



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: 1340-1-034N(SJ-0029)

Inventors: Schuetz et al.

Serial No.: 09/974,619

Filing Date: October 10, 2001

Examiner: Johannsen, Diana B.

Group Art Unit: 1634

Title: Genotyping Assay to Predict CYP3A5 Phenotype

"Express Mail" Label No. EV331020856US
Date of Deposit: October 7, 2003

I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Mail Stop, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

By Kathleen A. Tyrrell
Typed Name: Kathleen A. Tyrrell, Reg. No. 38,350

Mail Stop Sequence
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

RESPONSE TO NOTICE TO COMPLY

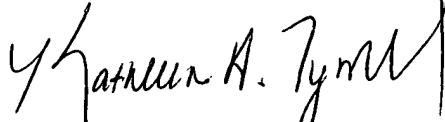
In response to the "Notice to Comply" dated September 9, 2003, a response to which is due October 9, 2003, enclosed herewith is:

- (XX) Amendment in Response to Notice to Comply;
- (XX) Statement to Support Filing and Submission in Accordance with 37 CFR §§1.821 through 1.825;

- (XX) Substitute pages of the Sequence Listing;
- (XX) Substitute copy of the computer readable form of Sequence Listing;
- (XX) Copy of Notice to Comply;
- () Petition for Three (3) Month Extension of Time;
- () Other: _____.

The Commissioner is hereby authorized to charge any underpayment associated with this communication or credit any overpayment to Deposit Account No. 50-1619. This sheet is attached in duplicate.

Respectfully submitted,



Kathleen A. Tyrrell
Registration No. 38,350

Date: October 7, 2003

Licata & Tyrrell P.C.
66 E. Main Street
Marlton, New Jersey 08053

(856) 810-1515